

**Abstract of the Disclosure**

*Sub A1*

After thinning a fingerprint image in a conventional method, a feature point is detected.

5 The feature point is assigned an ID, and the information about each feature point is managed. The information about a target feature point stores the information indicating the position of the ridge containing a vicinal feature point relative to the

10 position of the ridge containing the target feature point in addition to the position, type, and direction of the target feature point itself. Then, the information about the target feature point is checked in a matching process, and the vicinal

15 feature point is also checked in the matching process on a feature point contained in a ridge matching in position the ridge of the target feature point. When the target feature point and the vicinal feature point match each other in position and direction,

20 and are different from each other in type only, the mark is reduced to a value indicating a matching level. Then, a matching result of the vicinal feature points is obtained as a matching mark, and it is determined whether or not the target feature

25 point is matching by determining whether or not the